

The Missile Defense Agency's Capabilities Based Acquisition Approach

Timothy Biggs SPARTA, Inc. 22 October 2002



OBJECTIVE

- To Describe The Current Acquisition Approach That The Missile Defense Agency Is Undertaking
- To Describe How It Differs From The Requirements Based Approach
- Describe Why Network Centric Principles Are Required For MDA To Be Successful



OUTLINE

- Capabilities Based Acquisition Approach Versus Requirements Based Approach
- Previous Management Approach For Missile Defense
- Restructured Missile Defense Program
- Ballistic Missile Defense As A "Systems Of Systems"
 - North Korea Threat Scenario
 - Taepo Dong 1 Missile Test August 31, 1998
- Precedent For Restructured Missile Defense Program
 - ICBM Program Of 1950's
- Challenges



CURRENT MDA APPROACH

- Current MDA Program Is Only Path Capable Of Achieving A Ballistic Missile Defense Systems Of Systems
- MDA Relieved From Requirements Based Acquisition Approach
- Network Centric Framework
 - Movement Away From Platform Centric Approach
 - Towards Systems Centric Approach



REQUIREMENTS GENERATION PROCESS

- Traditional Approach Worked Well For Single Service Stand-Along Systems
- Complex Joint Service Programs Not Conducive To Firm, Fixed Requirements
 - Not Adequate Against Dynamic, Changing Threat



PREVIOUS APPROACH TO MISSILE DEFENSE

- Family Of Systems Framework
 - Upper And Lower Tier
 - Theater Missile Defense
 - National Missile Defense
- BMD Program Managers Reported Through Their Respective Service And Not To BMDO
- Theater Air And Missile Defense



BMD SYSTEMS

Lower Tier



PAC-3



Navy Area

Upper Tier



NTW



THAAD

<u>NMD</u>



NMD



RESTRUCTURED MISSILE DEFENSE PROGRAM



SECRETARY OF DEFENSE 1000 DEFENSE PENTAGON WASHINGTON, DC 20301-1000

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MEMORANDUM FOR DEPUTY SECRETARY OF DEFENSE
SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF DEFENSE
GENERAL COUNSEL OF THE DEPARTMENT OF
DEFENSE
DIRECTOR OPERATIONAL TEST AND
EVALUATION
COMMANDERS OF THE COMBATANT
COMMANDS
ASSISTANTS TO THE SECRETARY OF DEFENSE

DIRECTOR, ADMINISTRATION & MANAGEMENT

DIRECTORS OF THE DEFENSE AGENCIES
SUBJECT: Missile Defense Program Direction

The Department last year conducted extensive and rigorous missile defense reviews to determine how best to fulfill the Nation's need to defend the U.S., deployed forces, allies and friends. The findings underscore the importance of layered defenses as well as the need for new approaches to acquire and deploy missile defenses.

The attached provides my key priorities and specific direction to execute the Missile Defense Program. My objectives are:

- a. Establish a single program to develop an integrated system under a newly titled Missile Defense Agency (MDA).
 - b. Assign the best and brightest people to this work.
 - c. Apply a capability-based requirements process for missile defense.
- d. Direct the MDA to develop the missile defense system and baseline the capability and configuration of its elements and the Military Departments to procure and provide for operation and support.

The full and cooperative efforts of the Services, Joint Staff, and defense agencies are essential to this goal. I ask that you give your full support to this national priority. I will look to the Senior Executive Council for oversight and recommendations for decision-making in this area.

Point of contact for this matter is Lieutenant General Ronald Kadish, Director, Missile Defense Agency, (703) 695-6550,

RAR-JU

Attachment As stated

- Capabilities Based Approach
- Ballistic Missile Defense System As Single Major Defense Acquisition Program
- Cancellation Of Service ORDs.
- Layered Defense: Boost, Midcourse, Terminal Engagements Against All Ranges Of Threats

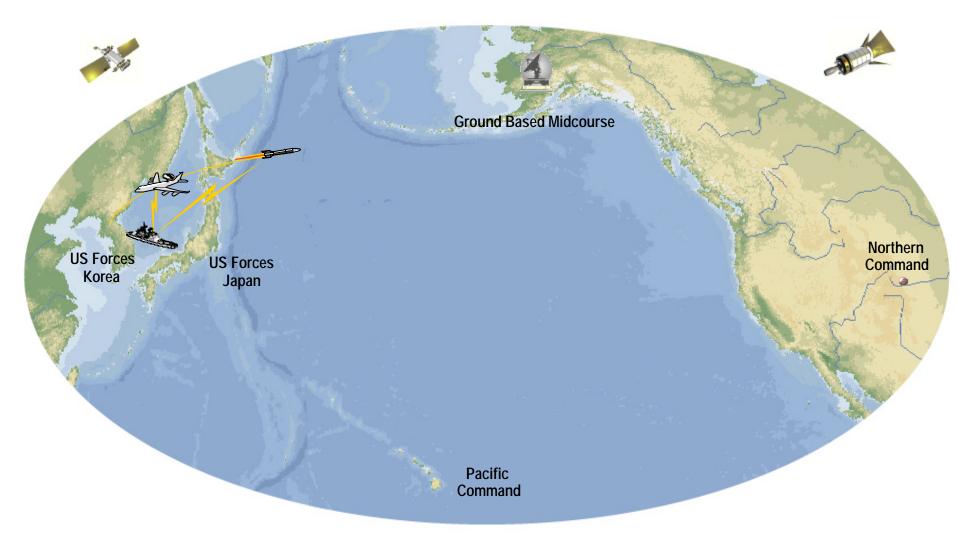


SYSTEMS OF SYSTEMS

- To Defeat The Missile Threat, Advanced Fire Control Concepts Needed
 - Precision Cue
 - Launch On Remote
 - Engage On Remote



NORTH KOREAN ICBM ATTACK SCENARIO





BMD AND THE CAPABILITIES BASED ACQUISITION APPROACH

- Threat Reality Against Intelligence Estimate
 - August, 1998 Taepo Dong Launch
- Capabilities Based Approach Recognizes That DoD Weapons Programs Are Driven By Politics And Budget Constraints
- PAC-3
 - MDA Emphasis On Short Term Buys ("Serial Procurement")
 - No Firm Commitment To Full Inventory Buy



PRECEDENT TO MDA'S APPROACH

- ICBM Program Of 1950's
 - Extremely Challenging Systems Engineering Process
- Program Given Top Priority
 - Response To Soviet Missile Program
- Gen Schriever Given Authority To Manage Outside Established Procedures
 - Concern That DoD Bureaucracy Would Delay



CHALLENGES

- MDA Approach Challenges Well Established Procedures
- Services, JCS, OT&E And Congress All Have Expressed Various Levels Of Concern With MDA Approach



CONCLUSION

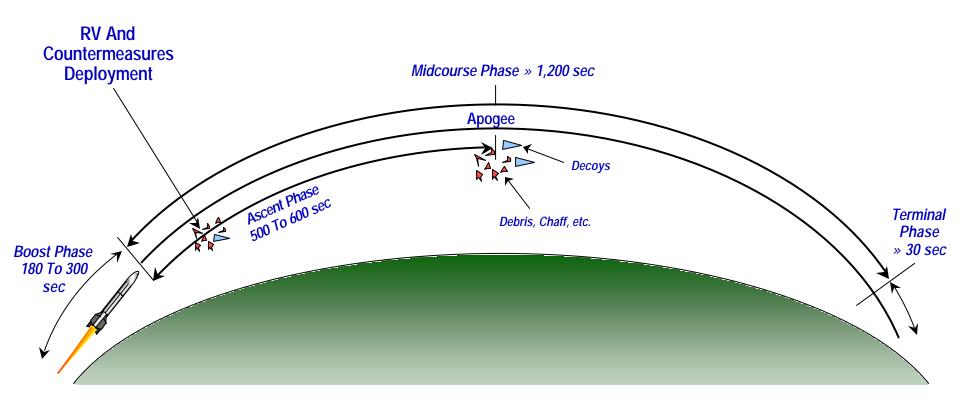
- Missile Defense Is On Cutting Edge Of Acquisition Reform
- Capabilities Based Approach, Using NCW As Systems Framework, Is Only Path To Full Success



BACKUPS



ENGAGEMENT PHASES





LAYERED MISSILE DEFENSE

Midcourse Defense Segment (MDS)

Defends Wide Regions

Space Sensor

Continuous, Global Coverage

Boost Defense Segment (BDS)

Destroys Missile Regardless
 Of Aim Point - Potential For
 Global Defense

Launch

Layered Defenses

- Multiple Engagement Opportunity Increase Likelihood Of Success
- Complicates Efforts Of Adversaries
- Overcomes Countermeasures

Terminal Defense Segment (TDS)

 Defends Localized Areas And Critical Assets

Impact



BMD SYSTEM ENGINEERING AND INTEGRATION APPROACH

